

CLAIM AMENDMENT

Listing of claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method for transforming a ~~monocotyledonous~~ corn, rice, barley, or wheat plant using an **Agrobacterium**-mediated process, comprising:
 - (a) preculturing at least one immature embryo from a ~~monocotyledonous~~ corn, rice, barley, or wheat plant in a first medium containing increased MS salts from between about 1.5 times standard to about 3 times standard and a concentration of picloram from between about 2.5 mg/L to about 5 mg/L for a period of time sufficient to form a precultured embryo;
 - (b) contacting the precultured embryo with **Agrobacterium** capable of transferring at least one gene construct thereto;
 - (c) co-cultivating the precultured embryo with **Agrobacterium**; and
 - (d) regenerating plants expressing the gene construct.
2. (Original) The method of claim 1 in which after the co-cultivating, the embryo is cultured in a second medium containing a selective agent to select for embryos expressing a gene construct that confers resistance to the selective agent.
3. (Original) The method of claim 1 in which the MS salts are doubled and the picloram concentration is 4 mg/L.
4. (Original) The method of claim 1 in which the monocotyledonous plant is wheat.
5. (Withdrawn) A transgenic plant produced by the method of claim 1.
6. (Withdrawn) A method for transforming a monocotyledonous plant using an **Agrobacterium**-mediated process, comprising:
 - (a) preculturing at least one immature embryo from a monocotyledonous plant in a first medium containing a concentration of glyphosate that is not sufficient to kill plant cells for a period of time sufficient to form a precultured embryo;

- (b) contacting the precultured embryo with **Agrobacterium** capable of transferring at least one gene construct to the embryo comprising a gene that confers resistance to a glyphosate-containing herbicide;
 - (c) co-cultivating the precultured embryo with **Agrobacterium**;
 - (d) culturing the precultured embryo in a second medium containing a concentration of glyphosate that is not sufficient to kill plant cells;
 - (e) culturing the embryo in a third medium containing a selective amount of glyphosate to select for embryos expressing the gene that confers resistance to a glyphosate-containing herbicide; and
 - (e) regenerating plants expressing the gene construct.
7. (Withdrawn) The method of claim 6 wherein the glyphosate concentration not sufficient to kill cells is from about 0.001 to 0.5 mM
 8. (Withdrawn) The method of claim 7 wherein the glyphosate concentration is from about 0.005 to 0.05 mM.
 9. (Withdrawn) The method of claim 8 wherein the glyphosate concentration is 0.02 mM.
 10. (Withdrawn) The method of claim 6 in which the monocotyledonous plant is wheat.
 11. (Withdrawn) A transgenic plant produced by the method claim 6.
 12. (Withdrawn) A method for transforming a monocotyledonous plant using an **Agrobacterium**-mediated process, comprising:
 - (a) preculturing at least one immature embryo from a monocotyledonous plant for a period of time sufficient to form a precultured embryo;
 - (b) contacting the precultured embryo with **Agrobacterium** capable of transferring at least one gene construct to the embryo comprising a gene that confers resistance to a glyphosate-containing herbicide;
 - (c) co-cultivating the precultured embryo with **Agrobacterium**;
 - (d) culturing the precultured embryo in a medium containing aromatic amino acids and a selective amount of glyphosate to select for embryos expressing the gene; and
 - (e) regenerating plants expressing the gene construct.

13. (Withdrawn) The method of claim 12 wherein the aromatic amino acid concentration is from about 0.001 μ M to 1 mM.
14. (Withdrawn) The method of claim 13 wherein the aromatic amino acid concentration is from about 0.05 μ M to 0.1 mM.
15. (Withdrawn) The method of claim 14 wherein the aromatic amino acid concentration is from about 0.1 μ M.
16. (Withdrawn) The method of claim 12 wherein the monocotyledonous plant is wheat.
17. (Withdrawn) A transgenic plant produced by the method of claim 12.
18. (Withdrawn) A method for transforming a monocotyledonous plant using an **Agrobacterium**-mediated process, comprising:
 - (a) preculturing at least one immature embryo from a monocotyledonous plant for a period of time sufficient to form a precultured embryo;
 - (b) contacting the precultured embryo with **Agrobacterium** capable of transferring at least one gene construct to the embryo;
 - (c) co-cultivating the embryo with **Agrobacterium**;
 - (d) culturing the embryo in a first medium containing a selective agent to select for embryos expressing the gene; and
 - (e) regenerating plants expressing the gene construct in a second medium containing copper.
19. (Withdrawn) The method of claim 18 wherein the copper concentration is from about 0.001 μ M to 3 mM.
20. (Withdrawn) The method of claim 19 wherein the copper concentration is from about 1 to 100 μ M.
21. (Withdrawn) The method of claim 20 wherein the copper concentration is from about 2 μ M to 20 μ M.
22. (Withdrawn) The method of claim 18 wherein the monocotyledonous plant is wheat.
23. (Withdrawn) A transgenic plant produced by the method of claim 18.

24. (Currently amended) A method for transforming a monocotyledonous plant using an **Agrobacterium**-mediated process, comprising:
- (a) preculturing at least one immature embryo from a monocotyledonous plant in a first medium containing ~~increased MS salts, increased picloram, increased MS salts from~~ between about 1.5 times standard to about 3 times standard and a concentration of picloram from between about 2.5 mg/L to about 5 mg/L, and a concentration of glyphosate insufficient to kill plant cells for a period of time sufficient to form a precultured embryo;
 - (b) contacting the precultured embryo with **Agrobacterium** capable of transferring at least one gene construct to the embryo comprising a gene that confers glyphosate resistance;
 - (c) co-cultivating the embryo with **Agrobacterium**;
 - (d) culturing the embryo in a second medium containing a concentration of glyphosate insufficient to kill plant cells;
 - (e) culturing the embryo in a third medium containing aromatic amino acids and a selective amount of glyphosate to select for embryos expressing the gene; and
 - (f) regenerating plants expressing the gene in a fourth medium containing copper.
25. (Original) The method of claim 24 wherein the plants are stably transformed.
26. (Original) The method of claim 24 wherein the gene construct is expressed in subsequent generations.
27. (Withdrawn) A transgenic plant produced by the method of claim 24.
28. (Original) A method for transforming a wheat plant using an **Agrobacterium**-mediated process, comprising:
- (a) preculturing at least one immature embryo from a monocotyledonous plant in a first medium containing doubled MS salts, picloram at 4 mg/L, and glyphosate at 0.02 mM for a period of time sufficient to form a precultured embryo;
 - (b) contacting the precultured embryo with **Agrobacterium** capable of transferring at least one gene construct to the embryo comprising a gene that confers glyphosate resistance;
 - (c) co-cultivating the embryo with **Agrobacterium**;

- (d) culturing the embryo in a second medium containing glyphosate at 0.02 mM;
 - (e) culturing the embryo in a third medium containing aromatic amino acids at a concentration of 0.1 μ M and a selective amount of glyphosate to select for embryos expressing the gene; and
 - (f) regenerating plants expressing the gene in a fourth medium containing copper at a concentration from about 2 μ M to 20 μ M.
29. (Original) The method of claim 28 wherein the plants are stably transformed.
30. (Original) The method of claim 28 wherein the gene construct is expressed in subsequent generations.
31. (Withdrawn) A transgenic plant produced by the method of claim 28.